Lead Compliance Plan
886 Closure Project
Bldg. 886 Cluster

Rocky Flats Environmental Technology Site

Prepared by
Rocky Mountain Remediation Services

Revision 0
November 19, 1997

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This Lead Compliance Plan has been reviewed and approved by:

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Ruth McCafferty, IH Team Lead — Date

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1.0 PURPOSE

The purpose of this plan is to minimize potential worker exposure to lead and inorganic lead compounds in a manner consistent with the requirements set forth by the OSHA Lead Standard. This Lead Compliance Plan has been written to satisfy the requirements of 29 CFR 1926.62(e)(2).

2.0 SCOPE OF WORK

The work to be performed under this Plan includes cutting various pieces of equipment that may contain lead painted surfaces in the Building 886 Cluster, removing lead shielding from gloveboxes, performing baseline sampling of potentially lead contaminated material, and demolition of drywall that contains lead painted surfaces.

3.0 GOOD HOUSEKEEPING PRACTICES

Removal of loose dust on work surfaces, to the extent practical, will be performed to maintain a clean work area. Surfactant, where practical and feasible, will be used to control lead dust and adhesive from becoming airborne. When applicable a HEPA vacuum may be used to pick up pieces of lead paint. The area will be maintained free of clutter and unnecessary equipment which could cause unsafe conditions, i.e. tripping hazard.

4.0 GENERAL WORK PRACTICES

Portions of lead painted areas will need to be size reduced in place. The lead is painted on cabinets, furniture, walls and other surfaces. If a small amount of cutting is made, the effected area will be taped or peel away will be used to cover the lead surface. Good housekeeping practices will be implemented to maintain surfaces as free as practical from accumulation of lead during the course of lead work. The use of compressed air to remove lead dust from any surface is prohibited. General work practices will include

unbolting and unscrewing all the pieces of equipment to try to minimize cutting of lead surfaces to the extent possible.

5.0 EXPOSURE ASSESSMENT

An initial determination of employees' exposure to lead is to be performed on any new task on lead painted surfaces. Monitoring will continue to be performed on employees who may be exposed to the greatest airborne concentration of lead or who are representative of a job classifications exposure. Personal air samples representative of a full shift in the affected work area will be collected, to the extent possible. Full shift personal samples will be collected by Industrial Hygiene as feasible and shall be representative of the monitored employees' regular, daily exposure to lead. All air samples shall be analyzed by an AIHA accredited laboratory using NIOSH or OSHA procedures.

If continuous employee exposure monitoring results are below 30 $\mu g/m^3$ as lead or lead compounds, no further sampling is required unless there is a change in materials or work practices. If the initial monitoring shows personal exposure to lead at or above 30 $\mu g/m^3$ but below 50 $\mu g/m^3$, personal exposure sampling must be performed every six months. Results in excess of 50 $\mu g/m^3$ will require personal exposure sampling every 12 weeks (see 29 CFR 1926.62 (d)(6).

From previous glovebox work, air monitoring data shows that removing lead (hand chisel) shielding from gloveboxes does not expose workers to airborne levels at the action level.

6.0 EMPLOYEE NOTIFICATION

Within 5 working days after receipt of personal air sampling results, employees shall be notified in writing of their exposure, and the corrective measures taken to reduce that exposure, if applicable.

7.0 RESPIRATORY PROTECTION

Respirators will be selected from Appendix I on the basis of actual or anticipated exposure levels. Refer to 29 CFR 1926.62(d)(2) for specific tasks and anticipated exposure levels. All negative pressure air purifying respirators shall be fitted with high

efficiency particulate (HEPA) filters. Quantitative fit tests shall be performed at the time of initial fitting and every six months thereafter.

8.0 PERSONAL PROTECTIVE CLOTHING

Employees shall wear PPE in accordance with the task specific activity hazard analysis and RWP as applicable.

Disposable protective clothing and equipment, that is worn where employees are exposed to lead in excess of the PEL or as interim protection for employees performing tasks as specified in paragraph (d)(2) of 29 CFR 1926.62 (i.e. manual scraping. torch cutting), must be placed in a container at a designated change area prior to leaving the work area. The container must be labeled "CAUTION: CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING".

Employees shall not leave the work area wearing potentially lead contaminated work clothing. Showers, hand washing facilities, and a clean dressing area are provided in Building 886.

All employees are prohibited from smoking, eating or chewing tobacco in the work areas while work is being performed.

9.0 MEDICAL SURVEILLANCE

Medical surveillance will be provided to any employee who may be occupational exposed on any day to lead in concentrations that are at or above the action level. Blood lead and ZPP (zinc protoporphyrin) bioassays will be required. Each employee will be tested prior to beginning work. If air monitoring indicates exposure above the action level, testing will be conducted at least every two months for the first six months and every six months thereafter. Additional testing will be required if blood lead levels are found to be above 40 µg/dl. (See 29 CFR 1926.62(j)(iv)(2)(A-C).

Further medical examinations and consultations are not required unless the employee will be exposed to airborne lead for 30 days or more in twelve consecutive months, the blood sample results are 40 µg/dl or greater or the employee develops signs or symptoms of lead poisoning. (See 29 CFR 1926.62(j)(3)(i)(A-C). Employees must be notified of their biological monitoring results within five days of their availability.

10.0 TRAINING

All employees shall receive lead worker training pursuant to 29 CFR 1926.62 prior to working with lead or lead compounds. Each employee will receive training to include the following:

- Nature of the work.
- The hazards of lead and its effect to employee health.
- Proper use of respirator.
- Medical surveillance program.
- Contents of this compliance plan.

Employee training will be conducted by course #019-574-01 or equivalent. Proper documentation will be made each time this training is given.

A copy of OSHA Lead Standard 29 CFR 1926.62 shall be made available upon employee request.

The work area where exposure to lead at or above the action level is possible, shall be closed or barricaded and warning signs placed frequently around the area to warn other employees. The work area will have controlled points of access. Controls will be implemented to prevent lead contaminated airborne dust from escaping the work areas.

If the PEL is exceeded warning signs shall be black lettering on yellow background and state "WARNING; LEAD WORK AREA; POISON; NO SMOKING OR EATING". All signs shall meet the requirements of 29 CFR 1926.62(m)

11.0 RECORD KEEPING

All employee exposure sampling and medical records shall be maintained by Occupational Health for the duration of employment plus 30 years.

APPENDIX 1

RESPIRATORY PROTECTION FOR LEAD EXPOSURE

Airborne concentration of lead or condition of use.	Required respirator.
Not in excess of 500 $\mu g/m^3$.	Half face Air-purifying respirator with HEPA filters.
Not in excess of 2,500 $\mu g/m^3$.	Full face air-purifying respirator with HEPA filters or Full face Powered air-purifying respirator with HEPA filters.
Not in excess of 50,000 $\mu g/m^3$.	Supplied air respirator with pressure demand or other positive pressure mode.
Not in excess of 100,000 µg/m3.	Full face supplied air respirator with pressure demand or other positive pressure mode.
Greater than 100,000 µg/m3.	Full face, self contained breathing apparatus, pressure demand mode.

HEPA A high efficiency particulate filter (HEPA) is one that is 99.97% efficient against particles of size 0.3 microns or larger.